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Appl. No.: 10/718,342 Atty. Dkt. No.: 10030679-1

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph under the ABSTRACT OF THE DISCLOSURE on page 56 with the following paragraph:

Methods are disclosed for selecting a combination of nucleic acid sample pairs for evaluating the ability of an oligonucleotide probe to measure differential expression of genes. Differential gene expression experiments are conducted using (f) nucleic acid sample pairs and (ii) limmobilized nucleic acid probes immobilized on a substrate, the probes representing a set of genes. The number of genes in the set is a portion of an expected number of genes in a sample. A nucleic acid sample pair combination is selected based on the members of the combination having a maximized number of genes from the set of genes that exhibit differential expression and a minimized number of the genes that do not exhibit differential expression. Methods are also disclosed for identifying a nucleic acid sequence of a nucleic acid that is suitable for use as a substrate surface immobilized probe for a target nucleic acid, for producing an array of nucleic acids on a substrate surface the surface of a substrate and for detecting the presence of nucleic acids on the surface of a substrate surface.